

DEPARTMENT OF THE ARMY TECHNICAL BULLETIN

AUTHORIZED SUBSTITUTE FOR P-D-680 TYPE II IN ARMY AVIATION MAINTENANCE

Headquarters, Department of the Army, Washington, D. C.
15 July 1999

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REPORTING ERRORS AND RECOMMENDING IMPROVEMENTS

You can help improve this manual. If you find any mistakes, or if you know of a way to improve these procedures, please let us know. Mail your letter or DA Form 2028 (Recommended Changes to Publication and Blank Forms), or DA Form 2028-2 located in the back of this manual directly to: Commander, US Army Aviation and Missile Command, ATTN: AMSAM-MMC-LS-LP, Redstone Arsenal, AL 35898-5230. You may also submit your recommended changes by email directly to Is-Ip@redstone.army or by fax 256-842-6546/DSN 788-6546. A reply will be furnished directly to you. Instruction for sending an electronic 2028 may be found at the back of this manual immediately preceding the hard copy 2028.

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OZONE DEPLETING CHEMICAL INFORMATION

This document has been reviewed for the presence of Class I Ozone Depleting Chemicals. As of 1 October 1999, all references to Class I Ozone Depleting Chemicals have been removed from this document by substitution with chemicals that do not cause atmospheric ozone depletion.

WARNINGS

Refer to Material Safety Data Sheet (MSDS) for safety precautions and personnel protection required when using any of the solvents listed in this Technical Bulletin.

This applies to the solvent called out in this Technical Bulletin.

FLAMMABLE

Do not use near open flames or any other ignition source, near welding areas or on hot surfaces. Do not smoke when using the solvents and do not use solvents where others are smoking. Vapors of most of these products are heavier than air and may collect in low confined areas, forming explosive mixtures with air. Solvent is combustible and toxic to eyes, skin and respiratory tract. Use protective gloves or creams; wear apron and wear goggles (or face shield) to protect the skin. Store in approved metal safety containers.

HAZARDOUS VAPORS

Adequate ventilation is required to avoid prolonged exposure to solvent vapors by personnel. Use approved respirator as determined by local safety/industrial hygiene personnel.

1. Purpose

The purpose of this Technical Bulletin is to alert the user community of the optional approved alternative for P-D-680 Type II.

2. Background

AMCOM Aviation Research, Development and Engineering Center (AVRDEC), Materials Engineering and the Environmental Technology Team have identified a drop in replacement for P-D-680 Type II for use in aviation maintenance procedures. Army Aviation maintenance facilities may be required to limit hazardous air pollutants due to state or local regulations. This substitute limits aromatic content in the solvent to less than 2% by volume. The use of the substitute is not mandatory.

3. Mineral spirits ASTM D235-95 Type II Class C

- a. Mineral spirits ASTM D235-95 Type II Class C is authorized as a replacement for P-D-680 Type II in aviation system maintenance procedures and documents. Mineral spirits of the above specification has received approval for use as a drop in replacement for P-D-680 Type II in all aviation Technical Manuals (TM's) and Depot Maintenance Work Requirements (DMWR's).
- b. Mineral spirits, also known as petroleum spirits, of ASTM standard D235-95 Type II Class C is a low odor, low residue, hydrogenated hydrocarbon solvent with an aromatic content limited to less than 2% by volume.
- c. The substitute solvent is approved for general purpose cleaning.
- d. When procuring, the solvent must be specified by the standard it complies with (ASTM D235-95 Type II Class C) and the CAS number (64742-47-8). The product should not be purchased solely by specifying NSN since all classes of Type II mineral spirits and P-D-680 solvents carry the same NSN.
- e. Other mineral spirits and petroleum-based solvents marketed under various trade names are acceptable provided their quality is consistent with the ASTM D235-95 Type II Class C standard.
- f. Reclaimed or closed-loop recycled mineral spirits or other petroleum-based cleaning solvents are also acceptable provided their quality is consistent with the ASTM D235-95 Type II Class C and the total chlorine content does not exceed 100 ppm (maximum), if any.

4. Trade Names and Suppliers

The solvent may be procured from the following suppliers.

NSN: 6850-00-637-6135

CAS no: 64742-47-8

142 Solvent 66/3 (Product Code: 2026). Cage Code: 5W323

Citgo Petroleum Corporation

1701 Golf Road

Rolling Meadows, IL 60008-4295

(847) 490-2500

Shell Sol 140 HT (Product Code: 83178). Cage Code: 54527

Shell Oil Company

1, Shell Plaza

Houston, TX 77001

(713) 241-4819

Dry Cleaning Solvent Type II. Cage Code: 5A188

Ashland Chemical Inc. IC & S Div.

5200 Blazer Pky

Dublin, OH 43017

(614) 790-3333

Dry Cleaning Solvent P-D-680A Type II. Cage Code: 4N760

Chemical Specialists & Development Inc.

5 Hackberry Lane

Conroe, TX 77305

(409) 756-1065

Formula 724A (P-D-680A Type II). Cage Code: 56883

Penetone Corporation

74 Hudson Avenue

Tenafly, NJ 07670

(201) 567-3000

Dry Cleaning Solvent PD-680 Type II. Cage Code: 60930

Hocking International Chemical Corp.

2121 Hoover Avenue

National City, CA 92050

(619) 474-8457

5. Caution

The substitute solvent is approved for cleaning metal and alloy parts only. If cleaning involves any substrate, part or component made of nonmetal such as plastic, composite or elastomer, specific approval for cleaning using the solvent is required from AMCOM.

6. Deviation from Documentation

This authority to deviate from aircraft system technical maintenance documents is to be used only where the aviation documentation calls out the use of P-D-680 Type II. No deviation for other cleaning processes and chemicals are authorized without explicit approval from AMCOM. AMCOM may approve additional substitutes for P-D-680 Type II as they are qualified. At that time changes to the documentation will be published in the appropriate TM's and DMWR's. This message applies to Army aviation documentation substitutions only. All other equipment or material substitutions must be approved by the respective material developer.

7. AMCOM Environmental Technology Team Hotline

AMCOM continues to reduce the army's dependency on hazardous materials (hazmat) as a business practice. Maintenance documentation is being revised upon substitute approval by the responsible organizations within AMCOM. Until documentation is revised, the AMCOM Environmental Technology Team (ETT) hotline is available to assist in the selection/approval of substitutes for specific P-D-680 applications. The ETT hotline is also a source for application specific approval for use of other products as replacements to hazardous materials. Your organization may request hazmat assistance from the ETT hotline.

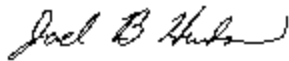
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8. Point of Contact.

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To be distributed in accordance with Initial Distribution Number (IDN) 313831, requirements for TB 1-1500-351-23-2.